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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,987	11/16/2001	Tiina Hamalainen	1123.40855X00	7991

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EXAMINER

PYO, KEVIN K

ART UNIT PAPER NUMBER

2878

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,987

Applicant(s)

HAMALAINEN ET AL.

Examiner

Kevin Pyo

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Objections

1. Claim 14 is objected to because of the following informalities:

In claim 4, line 8, before "second beam", --the-- should be inserted.

In claim 9, line 6, "lightsource" should be changed to --lightguide--.

In claim 11, line 6, "lightsource" should be changed to --lightguide--.

Claim 14 is a duplicate of claim 12.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. Claims 4-8 and 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, the phrase "the first device" of line 7 lacks a proper antecedent basis.

Regarding claims 6 and 7, the phrase "the directing devices" lacks a proper antecedent basis.

Regarding claim 11, the scope of claim 11 is unclear because it depends on itself. In order to expedite the prosecution, the Examiner will treat claim 11 as depending on claim 10 in determining patentability based on art.

Claims not specifically mentioned above are rejected by virtue of their dependency on a rejected claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Schyndel et al.

Regarding claim 4, as far as the claim is understood, Van Schyndel et al shows in Figs. 2, 2A and 3 the following elements of applicant's claim: a) a first light guide (19) which directs a first beam into a first predefined direction (a beam from a light source (29) is transmitted upward); b) a second light guide (21) which directs a reflection of the first beam (20) into a second predefined direction (col.4, lines 32-36); c) a beam splitter (35; col.4, lines 42-47) within the first light guide (Figs.2, 2A, light transmits upwardly even through bumps 35, therefore bumps acts as a light guide and therefore bumps are within a first light guide 19; col.4, lines 40-41, bumps can be formed integrally with a light guide and therefore becoming a part of a light guide) which splits an incident beam into a first and a second beam (the light beams from the surface of a light guide are split into two portions (beams going upward and 13), Figs.2 and 2A) ; and d) a beam directing device (35 on the upper surface of 21, an internal surface of a light guide 21) directs the second beam from the first light guide which directs the second beam into the second predefined direction.

Regarding claims 9 and 11, Van Schyndel et al shows in Figs. 2, 2A and 3 the following elements of applicant's claim: a) a transmitter (29) comprising a first light guide (19) which

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directs a first beam into a first predefined direction; b) a receiver (31); c) a light guide system used with the receiver (Fig.3); d) a second light guide (21) which directs a reflection of the first beam (20) into a second predefined direction (col.4, lines 32-36); e) a beam splitter (35; col.4, lines 42-47) within the first light guide (Figs.2, 2A, light transmits upwardly even through bumps 35, therefore bumps acts as a light guide and therefore bumps are within a first light guide 19; col.4, lines 40-41, bumps can be formed integrally with a light guide and therefore becoming a part of a light guide) which splits an incident beam into a first and a second beam (the light beams from the surface of a light guide are split into two portions (beams going upward and 13), Figs.2 and 2A)); f) a beam directing device (35 on the upper surface of 21) directs the second beam from the first light guide into the second light guide; and wherein the second light guide (21) comprises a directing device (35, an internal surface of 21) which directs the second beam into the second predefined direction.

Regarding claim 5, Van Schyndel et al discloses the recited beam splitter (35).

Regarding claims 6 and 13, as far as the claim is understood, the limitation therein is shown in Fig.2A.

Regarding claims 7, 12, 14 and 15, some bumps 35 or some portions of an internal surface of a light guide 21 are used to transmit only a second beam to a light receiver.

Regarding claim 8, the limitation therein is shown in Fig.3.

Regarding claim 10, Van Schyndel et al shows in Fig.3 the following elements of applicant's claim: a) a transmitter (29) comprising a first light guide (19) which directs a first beam into a first predefined direction; and a receiver (31).

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Regarding claims 1-3, the method steps therein are inherently disclosed by the apparatus of Van Schyndel et al.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Pyo whose telephone number is 703-308-4841. The examiner can normally be reached on Mon-Fri (with flexible hour), First Mon. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 703-308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Kevin Pyo
Primary Examiner
Art Unit 2878

pkk
August 8, 2003